



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

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09/12/08

Mr. Theodore A. Brown, Acting Chief
Planning and Policy Division, Civil Works
U.S. Army Corps of Engineers
CECW-P (SA)
7701 Telegraph Road
Alexandria, VA 22315-3860

Subject: West Onslow Beach and New River Inlet (Topsail Beach), North Carolina Shore
Protection, General Reevaluation Report and Final Environmental Impact
Statement - ERP: COE-E11060-NC - CEQ: 20080310

Dear Mr. Brown:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the U. S. Army Corps of Engineers' (Corps) Final Environmental Impact Statement (FEIS) for beach restoration at Topsail Beach, NC. Under Section 309 of the CAA, EPA is responsible for reviewing and commenting on major federal actions significantly affecting the quality of the human environment.

The FEIS evaluates the proposed federally funded project for hurricane protection and beach erosion control for a 5-mile portion of Topsail Island, a barrier island northeast of Wilmington. Construction would involve dredging of approximately 3.2 million cubic yards of sand taken from borrow areas offshore, impacting approximately 6.5 square miles of ocean bottom. Beach renourishment and associated maintenance on a 4-year interval is also part of the project as well as monitoring.

EPA reviewed the 2006 Draft EIS and provided substantive comments to the Corps in a letter dated August 15, 2006. Reviewing the responses to our comments we find that the Corps has responded adequately to most of EPA's comments made on the Draft EIS. However, there are several additional follow-up points we wish to offer at this time.

It would be prudent to shorten the 50-year project period because so much could change environmentally and economically in that length of time. After a number of years of borrow site use, monitoring of the sediments and trends in offshore borrow site topography could indicate substantial changes occurring to the island and the near-shore environment. If unexpected erosion loss of borrow site sediment is detected, it could necessitate major revisions to the long term shoreline maintenance plan. Any loss of the existing hard bottom features offshore should be investigated promptly to determine causal factors and appropriate action. From a biological perspective, increased

knowledge and trends of fish migrations, turtle nesting, and shore bird nesting behavior could also require modification of the maintenance plan. The plan, therefore, should have required periodic adaptive management.

We note from the responses to our comments that the Corps' GRANDUC plan formulation accounts for variability in storm events from year to year. Future protection from beach erosion requires dealing with the probabilities of storm events in terms of their frequency and severity. While little can be done reasonably to protect shoreline fully from damage caused by category 4 and 5 storms, it could be the duration and repetition of minor tropical storms and winter Northeasters that exact huge shoreline alterations coupled with an accelerated rate of sea level rise. We note from the Corps' responses to comments that the GRANDUC plan formulation factors in variability of storm events from year to year. However, it does not account for potential escalation in the severity of storms over the 50 year project period. If federal participation for more frequent supplementary actions becomes unavailable, it is uncertain whether the local community could sustain constant annual emergency restorations.

With further regard to the GRANDUC Program not assigning value to recreational benefits to the Nonstructural Alternatives (Section 5.05.2), this in turn undervalues all passive recreational pursuits by a growing subset of visitors seeking less developed/undeveloped barrier beaches. Resources in short supply logically command the higher value. GRANDUC, therefore, is over-weighted to erosion protection for developed beachfront. Perhaps it would be appropriate, also, for the non-structural alternatives screening to assess the proximity of structures to the mean high tide line resulting from a series of storm events rather than a predefined setback from the beach vegetation line. Barrier island beaches do not reshape uniformly.

EPA commented at the Draft EIS stage requesting technical reference for expected water quality impacts due to eroding of deposited fill material. This comment was responded to adequately. Additionally, EPA did not find mention in Section 8.07.2 of the post-construction water quality within the borrow sites. Substantial depressional features in the bottom contour would result at the borrow sites, and possibly expose oxygen-demanding sediments and accumulate organic silts that could result in chronically lowered dissolved oxygen due to reduced water circulation. Unless relevant data are available to address this topic, we request that the monitoring plan include periodic documentation of water quality within the borrow sites.

In summary, EPA continues to have some environmental concerns about this large project which warrants continued scrutiny during and after construction. Since EPA is in receipt of the DSEIS for Topsail Beach Interim Beach Fill Project, we may supplement the comments above as part of our response, under separate cover, to the Interim project. Please provide the Record of Decision to EPA and include us in notifications of interagency meetings on any remaining issues.

Thank you for the opportunity to review and comment on the FEIS. If you wish to discuss EPA's comments, please contact me at 404/562-9611 (mueller.heinz@epa.gov) or Ted Bisterfeld of my staff at 404/562-9621 (bisterfeld.ted@epa.gov)

Sincerely,

A handwritten signature in black ink, appearing to read "Heinz J. Mueller", with a stylized flourish at the end.

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

cc: NMFS, Beaufort, NC